Energy Services BULLETIN

Western's monthly energy efficiency and renewable energy newsletter dedicated to customer activities and sharing information on energy services.

Choose tracking system for DSM program carefully

Tracking is a critical piece of demand-side management (DSM) programs that can be difficult to get right, and is sometimes completely overlooked when designing the program. Western customers discuss some of the challenges they face in searching for the tool that collects the data that ultimately tells if their plan is working.

Utilities probably won't be able to find an off-the-shelf software package for two reasons, said Joyce Kinnear, Utility Marketing Services manager for the City of Palo Alto Utilities. "Until recently, not that many utilities were implementing DSM programs, so there wasn't a big demand for tracking software," she said. "Also, the fact that many DSM programs are very specific to the utility makes it hard to come up with a standard management tool."

Successful demand-side management programs, like the City of Palo Alto Utilities rebate offers and Missouri River Energy Services Bright Energy Solutions, may quickly outgrow simple spreadsheet tracking systems. (Artwork by City of Palo Alto Utilities, Missouri River Energy Services)

Major Account Manager Leigh Ann Osbment of Longmont Power & Communications found that out when she asked about tracking software in a utility listserv. "The most common answer," she recalled, "was, 'Let me know if you find something.'"

Spreadsheets

Like many utilities, Longmont has been using an Excel spreadsheet for tracking since it began offering DSM rebates in 2002. "A small utility may not need anything more elaborate than that," noted Kinnear.

However, an Excel spreadsheet may not be able to handle reporting mandates, program expansion, or years of data from a long-established program. Silicon Valley Power (SVP) used a spreadsheet to track its DSM programs for more than 10 years until the accumulation of data became too cumbersome, said Public Benefits Coordinator Mary Medeiros McEnroe. "We need that history," she explained,

"since SVP only rebates a measure once in its useful lifetime."

Osbment recalled that Longmont's program began to outgrow the spreadsheet as early as 2004. The utility recently received an Energy Efficiency Community Block Grant, so more incentive programs are on the way. Fort Collins Utilities is another municipal utility that used a spreadsheet, said Energy Services Manager John Phelan, "But after five or six years, it was becoming cumbersome to manage the multiple files."

Spreadsheet tracking was intended as a temporary solution when Missouri River Energy Services (MRES) launched Bright Energy Solutions in 2009. Rolling out the extensive portfolio of energy-efficiency programs to customers of its 57 member utilities was the power wholesaler's first priority. "We knew from the start that we had to have

What's inside

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some kind of tracking system," said MRES Energy Services Manager Joni Livingston. "But we wanted to take time to choose the right program."

Same needs but…

The basic functions utilities require from a tracking program are pretty similar, Phelan noted—record customers receiving rebates, process payments and calculate savings from individual measures, specific programs and the entire portfolio or programs. Public power utilities answering to state and local councils need a versatile reporting package. The system must be able to use the right metric (i.e., demand, energy, carbon, participation rates) for the program being tracked.

However, the devil is in the details. The same factors that influence the design of a DSM program—state and local energy-efficiency standards, consumer base, climate and power mix—also affect the choice of the tracking system.

MRES, for example, is looking for a package that can manage both customer and trade ally information and pull data from the Minnesota Deemed Savings database. The complex regional table estimates average energy and demand savings for different energy efficiency measures. It is also a huge timesaver, Livingston added, if the program can verify equipment through Energy Star and Air-Conditioning, Heating and Refrigeration Institute databases. MRES member utilities currently do much of the legwork to determine if a customer's equipment purchase is eligible for a rebate.

Upgrading tried, true

Like their needs, the solutions utilities choose are similar, but reflect their specific circumstances. Fort Collins and Palo Alto prefer a robust form of the spreadsheet/Access database combination that has served their DSM programs well in the past. With the help of an outside contractor, Palo Alto periodically updates its system to track programs that have increased in number and variety over the last two decades.

Phelan admits that Fort Collins is lucky to be able to handle the development of its new tracking system in-house. "About the time we were looking at new tools, a staff member joined us who had the skills to build the format we needed."

The city considered an outside provider but decided that the products would be too expensive and require too many changes to accommodate a small utility. "It's hard to anticipate the questions our Council might ask that would define how a third-

party program should be configured," Phelan said.

Prepare to customize

There are some good programs available through companies like Touchstone MSP and Energy Orbit, but Phelan pointed out that all require some customization. MRES and Silicon Valley, both of which chose to contract with third-party software providers, confirm Phelan's view. "The developer had never worked with a joint action agency before," said Livingston. "Our software requires more specialization than a program for an individual utility would."

MRES implemented its new tracking system in stages throughout 2009, working with the contractor over several months to get it running smoothly. Livingston is optimistic that the sophisticated software will be able to handle the demands of managing hundreds of different rebates.

SVP, too, is working with software developer SalesForce to add functions to its Web-accessed tool package. "A standardized reporting format that we could generate with one click would really increase our efficiency," said Medeiros McEnroe.

Tracking systems that increase efficiency, answer questions and show results for DSM programs must inevitably be as diverse as the programs themselves—there is no "one-size-fits-all" solution. Don't hesitate to talk to other power providers to learn from their experiences. "The thing to remember," said Livingston, "is that tracking a DSM program is harder than most people realize. Picking the right system is easier if you include it in your program design."

Businesses, utilities show leadership with 'Save Energy Now'

Individuals from 32 companies showed true leadership Dec. 2, 2009, by committing to save or reduce their company's energy use 2.5 percent annually during the next 10 years for a 25 percent reduction in energy intensity. The "25 in 10" pledge is part of the Save Energy Now initiative by U.S. Department of Energy's Industrial Technologies Program (ITP).

By signing the voluntary pledge, the companies earn the title of Save Energy Now (SEN) Leader, along with valuable technical assistance to reach their goals. "'Leader' is a good description for companies that refuse to accept business-as-usual when it comes to energy use," said Energy Services Manager Ron Horstman.

Several SEN Leaders are located in Western's territory, including Owens-Corning manufacturing facilities in Santa Clara, Calif., and Kansas City, Kan.; Serious Materials in Longmont, Colo.; Intel's corporate headquarters in Santa Clara, Calif.; and Honeywell offices throughout the west. The companies deserve the recognition that comes with being an SEN Leader, Horstman stated. "There are always hurdles to improving a company's energy efficiency," he said. "But the CEOs and directors who have committed to '25 by 10' understand that they have to think outside the box to remain competitive."

Benefits of leadership

Even the most savvy and well-meaning business owners, however, may run up against a shortage of time, resources and in-house expertise in their efforts to improve efficiency. Partnering with ITP can help busi-

Reduce your Energy Intensity 25% in 10 Years

Become a Save Energy Now LEADER >

The Save Energy Now Initiative gives businesses the tools to become more competitive by reducing their energy use. (Artwork by U.S. Department of Energy Industrial Technologies Program)

nesses turn their best-laid plans into real energy savings. SEN Leaders get priority access to ITP's proven technical resources, such as training and plant energy assessments.

Conducted by BestPractices qualified specialists, the energy assessment is the centerpiece of the SEN initiative. The goal of the assessment is to save energy by evaluating and improving compressed air, fan, process heating, pumping and steam systems. The recently updated process focuses on implementing identified savings opportunities at industrial plants, while providing the greatest value for the Federal funds used for the assessments.

More ITP resources are available to help leaders manage their energy consumption. Free software tools identify and analyze energy-saving opportunities in the targeted systems, data centers and other energy-consuming industrial processes. Technical publications, including tip sheets, fact sheets, sourcebooks, case studies and newsletters, provide facilities managers with a ready-made reference library. Training and webcasts on software assessment tools, technolo-

gies, energy assessments and other resources will show SEN Leaders more ways to save energy and money.

Utility partnerships

When large industrial customers reach their peak efficiency, their power providers benefit too, which is why Western has partnered with ITP since 2008. The program offers tools utilities can use to expand energy-efficiency and energy services offerings to commercial and industrial (C&I) customers.

Load control is a utility's best defense against volatile energy prices, Horstman pointed out. "ITP tools can help utilities turn their biggest energy consumers into allies by educating them on best practices that are good for the business, the utility and the community," he said.

Utility load control programs are often beset by the same lack of time, money and expertise that hampers industrial efficiency plans. Partnering with ITP connects utilities to information, tools and training based on decades of energy research. The BestPractices program offers

Share ideas at upcoming utility exchange

Utilities everywhere face new challenges and uncertainty about what the future holds for our industry. Instead of letting it get you down, get out and talk about it at two upcoming events—the Wyoming Utility Efficiency Exchange, March 9 and10, and the Utility Energy Forum, May 5 through 7.

Meeting in Cheyenne

Wyoming's third annual exchange offers two days of intensive networking and professional development at the Little American Hotel and Resort in Cheyenne, Wyo. Utility member services and planning representatives will discuss the nuts and bolts of developing and implementing successful customer programs. Trade allies will also be on hand to share their perspective on topics that include energy and water efficiency, smart meters, demand response and renewable energy.

Keynote speaker Mark Barron, mayor of Jackson, Wyo., will open the exchange with a presentation on the Jackson Hole Energy Sustainability Project. Under Mayor Barron's leadership, the town facilities and operations are now 100 percent reliant on renewable energy from a certified hydro-electric plant in Lincoln County.

In keeping with the event's theme, "Collaborating for Efficiency," the first Wyoming Contractor Exchange, takes place at the hotel March 10 and 11. Utility exchange attendees can meet potential partners in the residential and small commercial building industry who are interested

Utility Energy Forum President Joyce Kinnear of the City of Palo Alto Utilities talks to Jim Benney, CEO of the National Fenestration Rating Council, about window technology at the 2009 Utility Energy Forum. (Photo by R.L. Martin)

in incorporating energy-efficiency and renewable energy strategies into their businesses.

Forum in California

The 30th annual Utility Energy Forum at Granlibakken Conference Center in Tahoe City, Calif., provides a great networking opportunity for Western customers in the Sierra Nevada Region. Attendees will learn how to leverage consumer interest in energy efficiency and renewable energy to address global climate change issues.

Like the Wyoming event, the forum offers a low-key setting where utility professionals can exchange ideas and learn from the experts about current and emerging industry issues. Speakers from the Federal Energy Regulatory Commission and the U.S. Department of Energy Building Research Team share the agenda with representatives from regional power

providers. The expo, running concurrently with the forum, showcases products and services that could be the centerpiece of your next incentive program.

While you are learning how to "link up with customers," the theme of the Utility Forum, you will also be linking up with new friends and potential partners. Outside of the information-packed formal programs, both events leave attendees plenty of time to brainstorm over meals, snacks or drinks.

There is nothing like talking with people who have been through similar experiences to get the creative juices flowing and to find solutions to problems that you thought were yours alone. Register for the Wyoming Utility Efficiency Exchange or the Utility Energy Forum today—your next big idea is waiting for you. ⚡

Tools for measuring energy, emissions performance

Editor's note: The Energy Services Bulletin features real answers to real questions posed to our staff at the Energy Experts Hotline. We hope you find it useful.

Question:

How can we establish energy performance indicators among our company's various industrial facilities?

Answer:

Start with LEADER Baseline Guidelines, a system the U.S. Department of Energy's Save Energy Now (SEN) program provides to help SEN Leaders create their own internal baseline measurement. Download Steps to Develop a Baseline (PDF), six steps to follow to set your baseline for one or more facilities, as well as tracking and reporting progress from year to year. The guidelines will also instruct you on how to establish energy intensity, which is energy used per unit of product.

Other useful tools from this program include Quick PEP (Plant Energy Profiler), and the Energy Intensity Assessment Matrix (XLS), an Excel worksheet that allows you to calculate changes in energy intensity compared to the base year.

Measuring GHG emissions

You could also consider taking a more global approach in benchmarking your energy usage.

Taking the proactive approach to impending carbon regulations, you may wish to consider calculating energy baselines using protocols that are internationally accepted for greenhouse gas (GHG) emissions inventories. Converting all energy use to the equivalent greenhouse gas emissions creates a common measuring stick.

When carbon taxes or carbon trading is implemented, businesses will need to develop GHG inventories anyway, so it's a good idea to establish a baseline in these terms from the start.

Cap-and-trade systems will require facilities to reduce their emissions from an established baseline. Many of the GHG emissions trading programs now in development will be based on standards and data developed by the Climate Registry.

Carbon accounting tools

Registering with the Climate Registry will ensure that you receive potential benefit from your emissions reductions, and establish a fair baseline for your carbon emitting activities. Several references are available to help new users become familiar with the Climate Registry Information System (CRIS). How to use CRIS is an online tutorial of the system. Reference documents cover getting started for entity administrators and facility users, general

reporting protocol and a glossary of terms. A summary of the system's Verification Process Overview outlines key steps in reporting accurate, transparent and consistent measurement of greenhouse gases.

The Greenhouse Gas Protocol (GHG Protocol) is the most widely used international accounting tool for government and business leaders to understand, quantify and manage greenhouse gas emissions. The Greenhouse Gas Protocol Initiative offers online calculation tools for a number of commercial and industrial sectors.

Participants may choose from two GHG accounting standards, one for businesses or one for projects. The Corporate Standard provides methodologies for business and other organizations to inventory and report all of the GHG emissions they produce. Project guidelines are geared toward calculating reductions in GHG emissions from specific GHG-reduction projects. The Project Protocol is the most comprehensive, policy-neutral accounting tool for quantifying the greenhouse gas benefits of climate change mitigation projects.

Public power utilities seeking to build successful energy-efficiency programs will find resources to guide them through planning, designing, implementing and evaluating their activities at the Clean and Efficient Energy Program (CEEP) Web site.

Those who missed the preview of the Web site at American Public Power Association's (APPA) 2009 annual convention may be surprised at the broad spectrum of tools awaiting them. CEEP invites utility professionals to learn how to enhance their programs, discuss their questions with peers and experts and contribute their experience to the community.

Learn, discuss, contribute

CEEP's resource library includes downloadable best practice guidance, case studies and reports; and links to organizations and online tools. Users may search the library database using key words, or by selecting a topic or format from drop-down menus. CEEP encourages visitors to rate and comment on resources to validate which are truly "best practices" and to make it easier for others to find.

You can learn just as much by talking to peers as you can by reading a whole library, and CEEP's forum lets you connect with other utility professionals. Visitors can seek advice or share their experiences by joining a discussion or starting a conversation around a new topic.

Another way to share your voice

The Clean and Efficient Energy Program offers resources and contacts to help public power utilities build the business case for offering energy-efficiency programs to their customers. (Artwork by CEEP)

with the CEEP community is by uploading a new resource. Utility professionals can post case studies from their own agencies, or any report, article or policy paper that has been helpful to them. Visitors from utility-related organizations are also welcomed to contribute resources. Ratings and comments from other users can provide valuable feedback on new publications.

Resources by topic

As much fun as it is to explore, sometimes you just need to cut to the chase. For busy utility managers, CEEP also organizes resources under broad topics that are relevant to every energy-efficiency program.

Before you can launch an energy-efficiency program, you have to make a business case for your board. Resources on this page will help you explain the benefits and cost of energy-efficiency programs and provide models for factoring conservation into long-term resource plans.

Once management is on board, it is time to plan and design your

program. Under this topic, you will find information that will help your utility assess cost-effectiveness and potential impacts of different energy-efficiency measures in your market.

Best Practices makes the step of creating the actual program a lot easier for novices by offering successful models. Learn from other utilities' experiences—and mistakes—with partnerships, incentives targeting residential and commercial customers, demand-side management (DSM) activities, low-income assistance and municipal programs.

Even tried and true measures only work if your customers know the program is available and understand how it will benefit them. Use the resources in Marketing Energy Efficiency to reach your target audience and turn them into energy-saving allies.

Help customers find innovative financing to make energy-efficiency

Web site of the month *from page 6*

improvements, and evaluate your program by clicking on the "More" button on the topics navigation bar. A link to innovative financing is also located on the left side of all topic pages.

Get involved

The home pages all show the latest activity on the CEEP site related to the specific topic. New material is being added all the time to resources, the CEEP blog and events, and new users join the community each day, adding their voice to the conversation.

It is not necessary to register as a user to access CEEP resources, however, registration is free and only registered users may comment on or upload resources. Users create profiles with company and contact information to encourage collaboration among peers.

Along with education, facilitating partnerships is a central goal of the Clean and Efficient Energy Project. Meeting consumers' demand for energy in clean, sustainable ways is a big job, and one that no utility can do alone. Everyone from the DSM veteran to rural co-op launching its first light bulb program, can find resources, advice, ideas and support in the CEEP online community.

'Save Energy Now' *from page 3*

tools and strategies designed to involve diverse stakeholders from corporate executives to the general public in Save Energy Now projects.

Training, funding

ITP's 2010 Industrial Utility Webinar Series is cosponsored by Western, American Public Power Association (APPA) and APPA's Demonstration of Energy Efficient Development (DEED) program. The series brings utilities and C&I customers together to explore topics from financial mechanisms for energy-efficiency projects to combined heat and power opportunities. The next webinar, Financial Mechanisms and Incentives, is scheduled for March 10, from noon–2:00 p.m., EST, and is free to participants.

Speaking of finances, ITP provides about $50 million annually in cost-shared funding for research and development. The solicitations typically require collaborative partnerships, which may include manufacturers, universities, suppliers, national labs and others. Industry partners are generally expected to provide matching funds (equal to the Federal investment). Receive notices about upcoming solicitations, events, training and more by registering for Solicitation News.

With so much to gain and so many resources to reach the goal of reducing energy intensity 25 percent in 10 years, Energy Services looks forward to seeing more companies in Western territory take the challenge. Leadership may not be easy, but a Save Energy Now Leader will not be lonely. The Industrial Technologies Program, your utility and Western are right behind you.

Calendar of events

To access registration links, **visit www.wapa.gov/es/pubs.esb/2010/mar/mar10coe.htm.**

March 1	Buy Clean Energy campaign begins.
March 2-3	AWEA Wind & Transmission Workshop; Denver, CO. Print registration form (pdf); fax: 202-293-2567; register online.
March 9-10	AWEA Wind Power on Capitol Hill; AWEA Business Members only; Washington, DC. Register online; download registration form, fax: 202-293-2567.
March 9-10	Wyoming Utility Efficiency Exchange: Collaborating for Efficiency; Cheyenne, WY. Contact: Sharon Dobson; phone: 719-205-0071; register online.
March 10-11	Wyoming Contractor Exchange: Growing Your Business in a Difficult Market; Cheyenne, WY. Contact: Sharon Dobson; phone: 719-205-0071; register online.
March 10	SSL Technology and LED Lighting: New Tools in Your Toolbox; webinar; 1-2:30 p.m. CT. Register online.
March 15-16	EGIA Contractor Leadership Academy – Accounting Basics: Transforming Financial Statements into Management Tools; San Ramon, CA. Contact: Sharon Dobson; phone: 719.205.0071; register online.
March 16-18	2010 National Symposium on Market Transformation, Washington, DC. Contact: Rebecca Lunetta; register online.
March 17	AWEA Supply Chain Workshop; Greensboro, NC. Register online; download registration form; fax: 202-293-2567.
March 17-19	Solar Power Finance & Investment; San Diego, CA. Contact: Infocast; phone: 818-888-4444; fax: 818-888-4440.
March 25-26	EGIA Contractor Leadership Academy – Accounting Basics: Transforming Financial Statements into Management Tools; Cheyenne, WY. Contact: Sharon Dobson; phone: 719-205-0071; register online.
April 8-9	AWEA Wind Power Finance & Investment Workshop; New York, NY. Register online; download registration form; fax: 202-293-2567.